

Editor's note: Reconsideration denied by order dated Aug. 6, 1973

UNITED STATES
v.
MRS. H. R. WELLS ET AL.

IBLA 71-55

Decided June 26, 1973

Appeal from the decision of Administrative Law Judge Dent D. Dalby, holding 11 lode mining claims null and void.

Affirmed in part, set aside in part and remanded.

Administrative Procedure: Burden of Proof -- Mining Claims: Contests -- Mining Claims: Generally --
Mining Claims: Hearings -- Rules of Practice: Appeals: Generally -- Rules of Practice:
Evidence

In a mining claim contest the Government bears only the burden of presenting sufficient evidence to establish a prima facie case, whereupon the burden shifts to the claimant to show by a preponderance of the evidence that the claim is valid. But where on appeal it appears that a further hearing would be productive of more complete evidence needed for a proper resolution of the case, the Board of Appeals sua sponte will remand the case to the Administrative Law Judge.

Administrative Procedure: Adjudication -- Mining Claims: Contests -- Rules of Practice:
Evidence

Opinion evidence is entitled to weight only when consistent with probability and reason, and a conclusion contrary to reason, or to common knowledge and experience, or to the physical facts, has no probative force or value and is insufficient to support a finding. Mere unfounded surmise or conjecture will not suffice, regardless of the expert qualifications of the witness.

Mining Claims: Discovery: Generally

To establish a discovery upon a mining claim the evidence must be of such a character to show a deposit of minerals within the limits of the claim, as would warrant a prudent man to expend his labor and means with a reasonable prospect of success in developing a valuable mine.

Mining Claims: Determination of Validity -- Mining Claims: Discovery: Generally

Government mineral examiners determining the validity of a mining claim need only examine the claim to verify whether the claimant has made a discovery; they are not required to perform discovery work, to explore or sample beyond the claimant's workings, or to conduct drilling programs for the benefit of the claimants.

APPEARANCES: Herbert Clark for appellants, pro se; Richard L. Fowler, Esq., Office of the General Counsel, Department of Agriculture, Albuquerque, New Mexico.

OPINION BY MR. STUEBING

Herbert Clark, on behalf of the contestees, 1/ has appealed from the September 18, 1970, decision of the Administrative Law Judge, 2/ holding that all 11 contested lode mining claims 3/ are null and void.

The contest complaint charged, as to each of the contested claims, that:

(a) a valid discovery as required by the mining laws of the United States does not exist within the limits of [the claims].

(b) the land embraced within the limits of said lode mining claims is nonmineral in character within the meaning of the mining law.

(c) the said claims are not marked on the ground so that their boundaries can be traced.

(d) the said claims have not been located in accordance with 30 U.S.C. 621 et seq. (PL 359).

1/ Change of title of the hearing officer from "Hearing Examiner" to "Administrative Law Judge" was effectuated by order of the Civil Service Commission, 37 F.R. 16787 (August 19, 1972).

2/ Mrs. H. R. Wells, Herbert Clark, Vernal Clark and Ray Clark.

3/ Involving the Sleeping Beauty, Sleeping Beauty Nos. 2, 3 & 4, Wildhorse Nos. 1, 2 & 3, Gila Copper, and the Gila Copper Nos. 2, 3 & 4 lode mining claims.

The claims are located in the Telegraph Mining District and the Silver City Ranger District of the Gila National Forest. As noted in the decision below, the Tertiary Datil Formation covers most of the claims. Mining activities have occurred during the last 88 years within a seven or eight mile radius of the claims. One mine was located in the Datil rhyolite which comprises much of the formation. Some small copper deposits occur along the fault that forms the boundary between Pre Cambrian rocks and the Gila conglomerate. This fault starts a few miles southwest of the claims and trends northeasterly to T. 18 S., R. 17 W.

H. I. Ashby, a mining engineer employed by the Forest Service, testified that he conducted examinations of the claims in June, July and November 1969, and in April 1970. All samples which he took from Sleeping Beauty Nos. 3 and 4, Wildhorse Nos. 1, 2 and 3, Gila Copper and Gila Copper Nos. 2, 3 and 4 on outcrops and at points where contestee Herbert Clark indicated his mineral exposures existed were assayed at .01 percent copper. No other minerals were noted except in one sample from the Gila Copper No. 3 which indicated .06 ounce of silver per ton. The contestees presented no evidence of mineralization on these claims. The Judge characterized these meager showings as "insignificant" and concluded that the evidence was of such a character that a person of ordinary prudence would not be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine, citing Castle v. Womble, 19 L.D. 455 (1894), and subsequent Supreme Court decisions to the same effect. 4/

We agree that the Sleeping Beauty Nos. 2 and 3, Wildhorse Nos. 1, 2 and 3, Gila Copper and Gila Copper Nos. 2, 3 and 4 lode mining claims are null and void.

However, we are unable to endorse the holding with reference to the Sleeping Beauty and the Sleeping Beauty No. 2 claims. 5/

These two claims are the sites of mine workings and improvements for the production and beneficiation of ore. These are sufficiently extensive to dispel any doubt as to the bona fide intention of the

4/ Chrisman v. Miller, 197 U.S. 313, 332 (1905); Cameron v. United States, 252 U.S. 450, 459 (1919); Best v. Humboldt Placer Mining Co., 371 U.S. 334, 335-336 (1963).

5/ Sleeping Beauty No. 2 was erroneously referred to repeatedly by the contestant in the course of the hearing as Sleeping Beauty No. 1. No claim designated Sleeping Beauty No. 1 is involved in this contest (see Tr. 45).

claimants to seek to develop a valuable mine. There are numerous improvements on the claims, some of which can only be classed as incident to the development of a mine and the extraction and recovery of the mineral, as opposed to exploratory improvements. These consist of six excavated mining works of some significant size (three on each claim), including three pits, an untimbered adit about sixty or seventy feet long, an inclined shaft and an open cut, plus an L-shaped concrete retainer dam, a battery of four concrete precipitating tanks lined with asphalt, a series of metal chutes for conveying ore to the precipitating plant, and plastic pipe for carrying the acid solution. (Exh. 2). Water is provided by a well, although it is not established by the evidence whether the well is on the claims. (Tr. 99).

Of more significance, however, is the undisputed value of the ore, the quality of the evidence adduced, and the failure of both the contestant and the contestee to introduce evidence which the record indicates was available.

The contestant's own expert witness testified that, based upon his sampling of the two claims (involving nine separate samples), the average grade is 2.18 percent contained copper. At 60 cents per pound, which he testified was the prevailing price, this amounts to \$26.16 per ton. All of his testimony related exclusively to the value of copper and no value was ascribed to any other mineral despite the fact that every one of the assay reports returned on his own samples indicated significant values for silver and five samples contained 20 to 40 cents in gold. Sample No. 20 from the Sleeping Beauty No. 2 claim indicated 3.44 ounces of silver per ton and sample Nos. 18 and 19 indicated more than 1/2 ounce silver per ton. Further, Herbert Clark testified that an official of the Anaconda Copper Company, who had examined the claims, estimated four ounces of silver per ton and had said they contained sufficient silver to pay the mining costs. [Tr. 104]. Clark testified to his own belief that the silver values were worthwhile. [Tr. 102]. Yet despite these indicia of other values, they were ascribed no significance by the contestant or the Administrative Law Judge in their evaluations of the potential of these claims, and these corollary values were not even discussed beyond the mention of the fact that silver was worth \$1.85 per troy ounce and gold was worth \$40. [Tr. 15]. 6/

6/ According to our calculation, this would add \$1.37 to the gross value per ton, on the basis of assays of the Government's samples. This calculation does not take into account the current values of gold and silver, nor is there adequate evidence to indicate what portion is recoverable.

Our dissatisfaction with the state of the evidence, however, goes far beyond the failure to take into account the incidental values for gold and silver.

H. I. Ashby testified repeatedly that the quality and the amount was too low to be mined economically, his statement of insufficient quality having reference to the ore grade (Tr. 44). However, his subsequent testimony made it abundantly clear that the quality of the ore was not his concern at all. He testified to large scale operations successfully producing copper from ore containing only about a third as much as the ore from these claims, indicating that the large volume afforded cheaper mining methods at lower unit costs. (Tr. 51, 52). In fact, Ashby actually testified that ore from these claims could be mined economically if there was sufficient volume. (Tr. 59).

Judge Dalby: Let me ask you, if you took this ore and ground it out and put it in a solution and recovered it, that is, recovered the copper by this process, how many tons of ore a day would you have to process in order to make it an economic operation? (Emphasis added.)

Witness: I would say a minimum of 150-200 tons a day, that you would have to have developed and be able to mine over a period of about ten years in order to build the plant and pay for the plant and do it properly.

Now, if an economic mining operation can pay off its costs and pay for the plant over any term of time, it is obvious that a profit is being generated throughout the term of the operation -- in other words, an average unit profit is being made from every ton of ore mined, from the first ton to the last. Of course, if the ore is exhausted before the investment is amortized, the enterprise has lost money.

So what Ashby was actually saying in his testimony was that although the ore grade was ample for economic mining, he believed that the volume was insufficient. Volume, he said, controls the mining method and the unit cost, both of which he had hypothesized for these claims, without having first estimated that volume. He testified that selective underground mining on a four-foot mining width would be required on veins of two and three feet wide (averaging, he says, 2.5 feet (Tr. 81)), at a cost of \$10 to \$15 per ton. (Tr. 48-50).

The salient issue in the case, therefore, is the volume of ore present on the claims. The contestant's expert mining engineer, H. I. Ashby, at first testified that he "couldn't put a figure to the number of tons that are there." When asked why, he replied, "Because they are so little exposed." [Tr. 54]. However, when pressed by the Judge to furnish a tonnage estimate he asked for ten minutes. Instead, he was asked to utilize the period when the hearing recessed for lunch. When the hearings reconvened, the Government introduced a drawing of a cross-section view of the two claims (prepared by W. J. Garmoe, about whom further reference will be made) on which Ashby had drawn in red pencil what he conceived to be the limits of the indicated and inferred ore bodies. [Gov't. Exh. 5]. He then testified that the ore bodies so depicted contained 212.6 tons of indicated ore and 1,270 tons of inferred ore, both ores having an average grade of 2.18 percent copper. [Tr. 78].

The contestee objected vigorously to this testimony and to the introduction of Exhibit 5 saying, in effect, that the witness could not simply look at the top of the ground and tell what was beneath - that no man alive could do that, whereupon the record shows that Ashby, without being asked, stated, "I make no pretense of knowing how much is there. Well, that's how much I believe is there as both indicated and inferred ore." [Tr. 85]. Later, on cross-examination, the following colloquy ensued [Tr. 93]:

Q. Now based upon your examination of these claims and your analysis of samples taken from these claims, you are speaking strictly from a surface mineralization, except the one sample you took from Sleeping Beauty Number Two?

A. Relatively so, yes.

Q. Now, does that give you any concrete idea as to mineralization beneath the surface?

A. None whatsoever.

When contestant's counsel asked the Judge whether the computations made by the witness in formulating his opinion of the amount of ore would be of value in the record, the Judge replied that as far as he was concerned he would be interested in no more than Ashby's conclusions. [Tr. 77-78].

Insofar as can be determined from the record in this case, there was absolutely no method by which these conclusions of ore volume could have been calculated by the witness. The ore body was not sufficiently exposed, as he himself testified. Nothing suggests that he had access to information deriving from any drilling program that had

defined the ore body, or to data from a seismic survey of the claims. In short, there is nothing in the record to suggest that he had any basis at all for his volume conclusions except his own two-dimensional drawing of what he guessed were the subterranean limits of the ore.

Ashby's own protestations, first that he couldn't calculate a tonnage figure and second, having nevertheless done so, that he made no pretense of knowing what was there, followed by his statement on cross-examination that he had no idea whatsoever of the mineralization beneath the surface, make it appear that what he did was simply to improvise some sort of calculation in an effort to accommodate the Judge. His initial testimony that he couldn't do it was corroborated by the testimony of David P. Aker, General Mining Contractor, now contracting for U.S. Smelting and Refining & Mining Company, witness for the contestee, who stated that he could not estimate the extent of the ore, how deep it was, or how wide he would mine it, either from his own examination or from the data compiled by Ashby, whose report he had read. [Tr. 69-71].

Ashby's testimony as to the volume of ore present on the claims was the basis for his determination of the appropriate mining method, mining costs, and anticipated yield, and it was therefore the central premise for the determination that the claims are invalid.

Ashby is well qualified as an expert in his field, and his opinion would ordinarily be accorded some weight. However, opinion evidence is entitled to weight only when consistent with probability and reason, and a conclusion contrary to reason, or to common knowledge and experience, or to the physical facts, has no probative force or value, and is insufficient to support a finding. An opinion buttressed only by assumed facts has no evidential efficacy. So, an opinion based on speculation, surmise or conjecture, is of no probative force or value and will not support a verdict or finding. 32 C.J.S. Evidence § 567 (citations omitted). As noted by this Board in United States v. Winters, 2 IBLA 329, 78 I.D. 193 (1971), "mere unfounded surmise or conjecture will not suffice, regardless of the expert qualifications of the witnesses." It is our opinion, therefore, that Ashby's testimony as to the delineation and volume of the ore bodies should be accorded no weight whatsoever unless and until a proper premise can be laid to support it.

Another critical aspect of Ashby's testimony did not get the attention which we believe it deserved. He set the recovery of copper at 38 percent [Tr. 61] and premised his projections of value on this as well as on the limited ore volume. He based this estimated recovery rate on what he said was the experience of a similar operating mine. However, his mineral report [Government Exhibit No. 2]

contains the report of Dr. Paul H. Johnson, metallurgist with the New Mexico Bureau of Mines and Mineral Resources, in which he describes the results of an acid-leach test on a sample of the ore submitted to him by Ashby. The report states that the copper recovery was 83.4 percent in the one-hour leach period at a pH of 1.5, and he concludes that " * * * the ore responds quite well to acid leaching." Ashby explained that Dr. Johnson ground the ore to minus 48 mesh and agitated it in the solution, whereas his recovery estimate was based upon simply piling in the ore, lumps and fines, and processing it without agitation. He stated that if the ore treatment included grinding and solution agitation, "then you are talking about a very different economic picture." [Tr. 59].

This "different economic picture" was not further explored. Perhaps Ashby's recovery estimate is correct, and there can be no doubt that crushing and agitation would add to the cost, but without knowing how much cost would be added, we cannot judge the feasibility of the process. There is a vast economic difference between a recovery ratio of 38 percent and one of 83.4 percent.

Clark disputed Ashby's estimate of the mining costs, saying that a ripper and a bulldozer on the hill could push off six or eight tons at a time on the leach. The fact that the mineralization is close to the surface was concurred in by Ashby, White (Deputy Mining Inspector for the State of New Mexico), Aker and Clark, but Ashby testified that surface mining would require the purchase of several hundred thousand dollars worth of equipment. [Tr. 54]. Ashby did not describe the equipment to which he was referring, nor did he make any further reference to the possibility of surface mining. Aker's testimony was to the effect that the mining costs could not be estimated without more precise information on the extent of the ore body. [Tr. 71].

Clark testified that T. M. "Mannie" Fitch, in charge of Anaconda operations in New Mexico, was on the property and expressed the opinion that four ounces of silver per ton would pay the cost of mining the property. At that time silver was bringing \$1.29 per ounce. On that basis the mining cost would be about \$5 per ton (Tr. 104). This is half the cost projected by Ashby as a minimum.

Clark offered no evidence to prove that surface mining with a ripper and a bulldozer would be cheaper than selective underground mining, although we get the impression that he assumed everyone knew it to be so.

Where the state of the art affords several possible alternative methods to accomplish an objective, we question whether it can

be established prima facie that the attainment of that objective is impossible simply by offering evidence that one of the methods won't work, while ignoring the alternatives. On that basis, in 1963, a prima facie case against the possibility of lunar visitation could have been established by expert testimony that it would be impossible to construct the ladder, despite space advocates' protests that they had different plans.

Ashby also testified that one of the major mining costs was labor. He stated that a miner gets a minimum of \$40 per day. [Tr. 47]. Clark, who is employed as an equipment operator by Kennecott Copper Company, testified that he works on the claims when he can, and if he could get them into production he could "go to work down there for myself." [Tr. 107]. If the Clarks performed the labor and paid themselves the \$40 per day, it would appear by simple arithmetic that they would make a profit on the operation through wages even if the mine lost money to the extent anticipated by Ashby.

Clark testified that he has gained his knowledge of mining from his experience in the industry, in addition to reading and studying. He testified that based on the samples taken and the results of his small leaching tests, his experience leads him to the opinion that he could very easily commercially produce copper from these claims. (Tr. 100).

Thirty tons of ore from the Sleeping Beauty were mined and conveyed to the dump near the dam and precipitating tanks. A 23-pound grab sample from the dump assayed \$43.75 per ton copper. This, concededly, was sorted ore.

In a test of the separation process in the plant, Clark testified that he proved it did work and that he was confident it would work on a larger scale. (Tr. 98). He testified that "it made copper within three minutes, and it was still making copper when I shut it off * * *" (Tr. 99).

Clark testified that he has had offers to lease the claims on four occasions. (Tr. 104). He stated that he has a ready market at the Asarco Smelter in El Paso for all the leach material he can produce (Tr. 108), but that he hasn't been able to sell to them because, "I am still developing a road to get the stuff out." (Tr. 109).

Considerable reference was made in the record to documents, mineral examinations, assays and persons never presented. Both

sides discussed an examination of the claims made by W. J. Garmoe, said to be a geologist employed by Anaconda Copper Company. Ashby said that Garmoe conducted an examination in October of 1964 [Tr. 29], but then stated that Garmoe sampled an incline on one of the claims 60 years ago. [Tr. 30] Ashby used the drawing allegedly made by Garmoe (which Ashby borrowed from Clark) as Exhibit No. 5. He even used one of the samples allegedly taken by Garmoe which he reported showed only \$15.60 per ton in copper. He did not clarify whether this was based on a price of copper when the sample was taken, or the price as of the time of the hearing, nor did he reveal the results of any other Garmoe samples, findings or conclusions. In any event, references to Garmoe's work constitutes hearsay, and if they are considered then the contestee's hearsay should not be disregarded.

Clark testified that the Phelps-Dodge Corporation made an examination of the claims in 1967 and wrote a letter recommending the property. [Tr. 105]. The letter was in Clark's possession at the hearing, but he did not introduce it in evidence because, he said, "I want to keep it." He wasn't pressed to permit the record to reflect its content. [Tr. 107]. Clark also stated that he has two or three assays made of samples during each year since 1956, one of which, by Ira Wright, ran 8 percent copper, which was rerun by Kennecott at 7.8 percent copper. He testified that his assays have run from 3 percent to 31.5 percent copper, but that these assays were run for him by the assayer at Kennecott Copper as a favor, and the reports were verbal rather than written.

Clark made no effort to support his allegations as to the results of the independent mineral examinations made on the claims, the assays performed, or the mining methods he would employ, although presumably he could have done so by the testimony of persons having direct knowledge of these matters. It appears that his own testimony as to these aspects of the case were accorded no weight by the Judge.

Although the contestees' case falls short of establishing the validity of the Sleeping Beauty and Sleeping Beauty No. 2 claims, in our opinion, the contestant's case is so built on conjecture, and so inconclusive, and the record is so deficient as to afford an inadequate basis for a determination that the Sleeping Beauty and Sleeping Beauty No. 2 claims are invalid.

The allegations made by appellant as reasons for appeal are essentially without merit, except as they relate to Ashby's estimate of ore volume. It is asserted that Ashby lied regarding sample no.

15 which was left at the mine. This was explained in the record to our satisfaction as the result of an honest mistake (Tr. 88). The appellants also assert that it is the responsibility of the Bureau of Mines to drill and block out the mineral content and show the cores, the drill hole locations and the log of the assays to appellants. This, emphatically, is not the Government's obligation. We have repeatedly held that a Government mineral examiner's only duty is to examine mining claims to verify whether a discovery has been made. He is not required to perform discovery work, rehabilitate alleged discovery points or to explore or sample beyond the claimant's exposed workings which may safely be examined. United States v. Gray, 8 IBLA 96 (1972); United States v. Avgeris, 8 IBLA 316 (1972); United States v. Mortenson, 7 IBLA 123 (1972); United States v. Bass, 6 IBLA 114 (1972); United States v. Guthrie, 5 IBLA 303 (1972).

Our determination to remand this case for a further hearing is not intended and should not be construed as an assault on the time-honored concept that in a Government contest of a mining claim the Government bears only the burden of going forward with sufficient evidence to establish a prima facie case, and that the burden then shifts to the claimant to show by a preponderance of the evidence that his claim is valid. Foster v. Seaton, 271 F.2d 836, 838 (D.C. Cir. 1959).

In the instant case we feel that the evidence upon which the Government relied in establishing prima facie the invalidity of the Sleeping Beauty and the Sleeping Beauty No. 2 was predicated on a weak premise, that sufficient doubt exists regarding that evidence to require elucidation, that certain other evidentiary aspects were not considered, and that additional evidence may be available.

While the appellants have not offered additional evidence nor requested a remand, where a majority of this Board is sufficiently dissatisfied with the state of the evidence that it is unwilling to affirm the determination of the claims' invalidity on the basis of the record before it, ample authority has been delegated to the Board by the Secretary to remand the case sua sponte to the Administrative Trial Judge for rehearing. 43 CFR 4.1. Where it is the opinion of this Board that a further hearing would be productive of fuller evidence needed for the proper resolution of the case, there are grounds for remanding the case for that purpose. See Molybdenum Corporation of America, 4 IBLA 53 (1971); see also Estate of Joseph Mjoetah Masquat, IA-T-16 (November 15, 1968).

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the

decision appealed from is affirmed as to the holding that the Sleeping Beauty Nos. 3 and 4, Wildhorse Nos. 1, 2 and 3, Gila Copper and Gila Copper Nos. 2, 3 and 4 lode mining claims are null and void; and the holding in that decision that the Sleeping Beauty and the Sleeping Beauty No. 2 lode mining claims are null and void is set aside and the case is remanded to the Administrative Law Judge for further proceedings consistent herewith.

Edward W. Stuebing, Member

We concur:

James M. Day, Director, (Member Ex Officio)

Frederick Fishman, Member

Douglas E. Henriques, Member

Anne Poindexter Lewis, Member.

Mrs. Thompson, Dissenting in Part

As to that part of the majority's opinion which affirms the Judge's decision finding that the Sleeping Beauty Nos. 3 and 4, Wildhorse Nos. 1, 2 and 3, Gila Copper and Gila Copper Nos. 2, 3, and 4 lode mining claims are null and void, I concur. However, as to that part of the decision which sets aside the Judge's decision and remands the case sua sponte for further hearing as to the Sleeping Beauty and the Sleeping Beauty No. 2 claims, I dissent.

In the present posture of this case I cannot agree that this Board should order a further hearing sua sponte. I have no quarrel with the proposition that this Board may in certain circumstances order further evidentiary proceedings if the record is so lacking in information that there is not sufficient basis for making a decision. See 43 CFR 4.452-9. I submit that is not the situation in this case. There should be a substantial expectation that a further hearing will be productive of evidence necessary to the making of a decision, and some reason which affords justification for ordering a further hearing. United States v. Wood, A-30697 (May 31, 1967); United States v. King, A-30867 (February 28, 1968); United States v. Haas, A-30654 (February 16, 1967). See also United States v. Sullivan, 9 IBLA 278 (1973). Neither of these factors is present. Appellants have not requested a further hearing. Nothing in appellants' appeal affords any reason for assuming that at a further hearing they will be able to present probative evidence which would meet deficiencies in the record now, nor have any reasons been shown as to why evidence available at the time of the hearing was not presented. In the absence of any indication that the claimant would meet the affirmative burden in this case, I do not believe that a further hearing is warranted.

What is the situation here? Appellants have raised two major objections to the Judge's conclusion that the claims are invalid. Their first objection does not go to the correctness of the conclusion, but only to the Government's reason for bringing the contest. Appellants state that they are confused because their first notice indicated the site was wanted for a birdlife sanctuary, but at the hearing there was only a suggestion it was desired for a power dam site. There is no necessity for the Government to establish another use for land when mining claims are contested, Davis v. Nelson, 329 F.2d 840, 846 (9th Cir. 1964), although there is no reason why such information should not be given to the claimant, and the mineral report in evidence indicates the reasons. Regardless of the reasons of the Forest Service in contesting a claim, this Board should only ascertain whether the evidence supports the charges made in the contest complaint and whether the Judge's findings and conclusions are correct. I believe the evidence does support the charges and the Judge's holding that there is no discovery of a valuable mineral deposit.

Appellants' second objection goes generally to the sufficiency of the Government's evidence, and particularly to the credibility of the Government's mineral examiner, H. I. Ashby, a mining engineer, who testified at the hearing. They contend that he did not examine the claims properly and had insufficient information upon which to base his opinion that there was not a valuable mineral deposit on the claims. They point specifically to only two matters. The majority has answered one, appellants' contention that Ashby lied concerning sample number 15, which was left at the mine. The mineral examiner's explanation that the sample left at the mine had not been included in the mineral assay reports offered into evidence satisfactorily explains the number duplication. The second matter concerns Ashby's testimony concerning the extent of his examination of the claims. Appellants contend that Ashby's estimates of the quantum of mineral and cost of extraction cannot be accurate because the only proper method to determine the mineral content of these claims would be drilling to block out the ore body. They state the Bureau of Mines should conduct a drilling program on these claims after which they should be allowed to examine the core and logs of its recorded assay reports.

It is well established that the Government has no obligation to do the discovery work for the claimant, particularly, to drill and block out ore bodies, or to do more than simply examine the claim to verify whether there is a discovery of a valuable mineral deposit. To drill or otherwise establish the existence and extent of a mineral deposit is the obligation of the mining claimant. Henault Mining Company v. Tysk, 419 F.2d 766 (9th Cir. 1969), cert. den. 398 U.S. 950 (1970). For this reason, when this case is returned for further hearing, the burden of establishing that there is sufficient mineral to constitute a discovery is upon the claimant. Id.

There are several matters wherein I disagree with the analysis of the evidence and certain implications which might be drawn from the majority opinion. These are noted as follows:

First, in evaluating the evidence the fact that one hearsay item is given weight is not a reason by itself for giving weight to dissimilar hearsay submitted by another party. There is no tit for tat logic in properly evaluating evidence. All evidence, including hearsay, must be weighed according to its foundational basis. Hearsay evidence regarding a sample, which gives its location, its dimensions, and its representativeness of the material from which it is taken, has more weight than hearsay testimony regarding samples which does not contain much information. See United States v. Hunt, A-28189 (February 29, 1960). Therefore, the hearsay report of a sample taken by W. J. Garmoe may be given some weight, as it is supported by such information.

Clark's testimony, however, of higher grade samples taken from the claim should be disregarded or, at most, given little weight because no assay reports were offered, nor any testimony given as to the method of sample taking, the width and area sampled. Such information is necessary to evaluate meaningfully what the sample indicates. United States v. Avgeris, 8 IBLA 316 (1972). As to the hearsay opinions which Clark reported he had received as to silver values within the claims, it is compelling that the weighted averages of the assayed samples corroborated in the record are much less. They do not support a finding that the gold and silver values in the samples are significant, as indicated in the majority opinion. A \$1.37 per ton combined weighted value (excluding one sample by Garmoe, mentioned in Ashby's report which, if added, would bring the weighted value down) is only a small additional value. That value, however, assumes 100% recovery of the mineral from the ore. How much of that value could reasonably be extracted and recovered is not known. Clark mentioned that he was only interested in making copper in his small leaching system. (Tr. 99)

Second, the opinion suggests that there should be further exploration of a possibly "different economic picture" from a different processing system than that of the claimant, one which might get a higher recovery of the mineral than that reported by Ashby. Ashby testified that the ore could not be processed on a reasonably profitable basis under Clark's system "because the material, all you're going to get from this circulation process that they are setting up, is the surface copper. You're not going to get but a very low recovery." (Tr. 58) Ashby testified concerning the difference between the low recovery in Clark's proposed leaching system and that mentioned in Ashby's mineral report concerning a method used by a Mr. Johnson. He explained that Johnson's method called for grinding to a minus forty-eight mesh and then agitating it in the solution, whereas Clark's method was piling the ore:

* * * lump ore and fines and one thing and another; and it's also high in camin, which has a damming effect on solution, and circulating this solution through this pile, you are going to pick up a very low percentage of the copper that's in the pile, and have it available for precipitating, unless you are going to put in some kind of ore treatment whereby you are going to grind this stuff, and agitate it in solution. (Tr. 58-59)

It is obvious that the Johnson method is costlier than claimants' proposed method because of the additional factors of grinding the material and agitating it in solution.

Appellants offered no evidence as to possible recovery or costs in contradiction to Ashby's testimony, only a statement by Clark that he was satisfied after running material through his own small

system for several minutes that a large scale operation could be accomplished. (Tr. 98-100) The obligation to submit further evidence to establish a different recovery rate and to establish that the claimants' proposed recovery processing system is economically feasible is upon the claimants and not upon the Government. United States v. California Alluvial Mining Corp., A-30928 (January 30, 1969).

Third, the majority's conception of profitability based upon Clark's working for his own wages, even though the operation would lose money, is not warranted by the evidence or by the prudent man test. The expectation inherent in the prudent man test of Castle v. Womble, 19 L.D. 455 (1894), as has been applied by this Department and the Court, contemplates an actually profitable investment, which includes expected amortization of expenses and costs of the mining operation. See, e.g., United States v. Coleman, 390 U.S. 599 (1968), aff'g United States v. Coleman, A-28557 (March 27, 1962); Best v. Humboldt Placer Mining Co., 371 U.S. 334 (1963); Cameron v. United States, 252 U.S. 450, 459 (1919); Chrisman v. Miller, 197 U.S. 313, 322 (1905). See also, especially as to a consideration of the costs of a mining operation in applying the prudent man test, United States v. Adams, 318 F.2d 861 (9th Cir. 1963).

Fourth, as to the analysis deprecating the inferred estimate of the quantity of ore given by Ashby at the urging of the Judge, the mining claimants should be informed that the finding of the Judge was not based upon a determination of the actual amount of ore within the deposit but upon an expert estimate, an evaluation of the quantity of the deposit based upon geological inference. The arguments concerning Ashby's denial of any knowledge of the actual tonnage of ore within the deposit are meaningless when we consider all of his testimony in context. He did not purport to say how much ore was beneath the ground, but only to give an estimate based upon his own expertise, on standards used in ore calculations and his past experience in making such calculations. (Tr. 86) While the record does not contain Ashby's specific calculations used in making this estimate, we do have his detailed testimony and his mineral report regarding his investigations of the workings on these claims, his sampling, the dimensions of the samples and of the exposed mineralization (insofar as it could be ascertained from the conditions of the workings). Clark agreed with the information in the mineral report, but not Ashby's conclusions. (Tr. 84) One of his witnesses, David P. Aker, a general mining contractor, read the report and testified that it "sounded quite accurate." (Tr. 70) The extent of the area Ashby showed on a diagram in the mineral report as a zone of mineralized influence was based upon the extent of the workings and inferences from the samples from the workings. His calculation was based upon the indicated ore shown in the workings, with a value calculated from the samples, and inferences of more ore between these workings.

Although geologic inference may not be relied upon to establish the existence of a mineral deposit within a claim, it may be used in estimating the extent and potential value of a particular mineral deposit. United States v. Relyea, A-30909 (June 25, 1968), aff'd Relyea v. Udall, Civil No. 3-58-20 (D. Idaho, February 19, 1970), no appeal. I would uphold the Judge's acceptance of the mineral examiner's evaluation of the claim based upon his examination, samplings, and geological inferences. We have no conflicting evidence which would establish any better estimate of the quantum of ore within the claims. Clark has offered nothing which would. He had the opportunity to cross examine the witness but did not go into his calculations or question his methods.

Even if we were to disregard the estimate of inferred quantity of ore, the state of the evidence, including that presented by the claimants, is such that, as the majority opinion admits, the validity of the claims has not been established. Claimants' own expert witness testified there needed to be more drilling to determine the depth and the grade of the mineral deposit and more exploratory work on the claims. (Tr. 71)

The Government's mineral examiner testified as to his examination of these claims and as to matters set forth in his mineral report. (Ex. 2, see Tr. 8-23, 24-43) From his overall examination of the claims, the workings, samples, etc., he concluded that the exposures of mineralized material within the Sleeping Beauty and Sleeping Beauty No. 2 claims are across narrow widths, 1 1/2 feet to 3 feet, and are separated by areas of barren material. (Tr. 44) He described the higher grade copper material as "picked, sorted stuff" of a ratio at least two to one of the material that could be mined, and that the mining of such narrow streaks is very expensive. (Tr. 44, 45) He concluded that the mineral exposures on those two claims "are too small and discontinuous to constitute a valid discovery within the meaning of the mining law." (Ex. 2 at 11) That is a sufficient basis to establish prima facie that there is not a valuable mineral deposit within those claims. As a qualified mining engineer, Ashby was competent to testify as an expert and offer his opinion on whether there was sufficient mineral to satisfy the prudent man test. Udall v. Snyder, 405 F.2d 1179 (10th Cir. 1968), cert. den., 396 U.S. 819 (1969). We see no reason why his opinion should not be accepted in this case in view of all of the facts, including the testimony of the claimants' expert witnesses, which supports Ashby's opinion.

At most, the evidence in this case suggests that further exploratory work to find a valuable mineral deposit may be warranted. The prudent man test is not satisfied merely by the showing of some mineralization warranting only further exploration to establish the existence of a valuable mineral deposit. Converse v. Udall, 399 F.2d 616, 620 (9th Cir. 1968), cert. den., 393 U.S.

1025 (1969); United States v. Jones, 2 IBLA 140 (1971). The Government does not have the affirmative burden of proving that no valuable deposit exists upon the claims; instead, the claimants have the affirmative burden to show by a preponderance of the evidence that there is sufficient mineral within the claims to meet the prudent man test. Foster v. Seaton, *supra*. This includes the obligation to show the quality and quantity of the mineral deposit. United States v. Harper, 8 IBLA 357 (1972). If there is any doubt or uncertainty as to the existence of discovery, the claimants, as the parties bearing the ultimate burden of proof thereof, bear the risk of nonpersuasion. This means that the doubts must be resolved against the claimants.

In the present posture of this case, appellants have not satisfied us that there is a discovery of a valuable mineral deposit, nor do we view the workings and improvements as favorably as stated in the majority opinion. The claims were located in 1956. The few underground workings which had any exposed mineralization were in an unsafe condition. Ordinarily, where there is a finding of no discovery, the matter would end with a decision of this Board affirming the Judge's finding to that effect. I would do so in this case. As a further hearing is ordered by the majority, Clark, the real party in interest, should be advised that it is up to him to submit better evidence to show the existence of a valuable mineral deposit. This should include evidence of the extent of the minerals; actual sample reports should be submitted showing the extent to which they are representative of the mass of the material; expert evaluation of the evidence should be adduced from which reliable estimates of the value of the deposit may be made. It should also include more detailed and accurate evidence concerning the costs of the proposed mining and beneficiation process, costs of transportation, and all information relevant to the question of whether a profitable mining operation can be expected.

Joan B. Thompson, Member

We concur:

Newton Frishberg, Chairman

Martin Ritvo, Member

Joseph W. Goss, Member

